



FOOD FOR RUGBY

NUTRITION FOR TRAINING

“

Being a top athlete requires rigorous training, and achieving that level of commitment demands ensuring your nutrition is on point.

- Erick Mosquera, Performance Nutritionist

”



CONTENTS

01. INTRODUCTION	02
02. PRE-TRAINING	03
03. DURING TRAINING	05
04. POST-TRAINING	06
A. REFUEL	06
B. REPAIR	07
C. REHYDRATE	08
05. REFERENCES & ADDITIONAL RESOURCES	09

01. INTRODUCTION

A normal training week for a rugby athlete usually involves varying levels of training loads. The energy a player needs to support a light training day (skill-based field session or standard gym session) will be very different from that of a hard training day (double on-field high-intensity sessions). Therefore, it is important that food intake matches daily training demands to ensure adequate fuelling, optimal training adaptations, and top athletic performance.

The following sections provide general nutrition recommendations in terms of **pre-training**, **during training** and **post-training** meal considerations.



02. PRE-TRAINING

The goal of a pre-training meal is to top up your carbohydrate stores so you're ready for activity. Therefore, to fuel adequately for your training sessions, you should include high-carbohydrate foods in your pre-training meals. For example: **pasta, rice, potatoes, wraps, bread, fruits and juices, sport drinks.**

There might be some exceptions to this, like when the training session is very light or you are periodising carbohydrates to manage body composition or gain training adaptations.

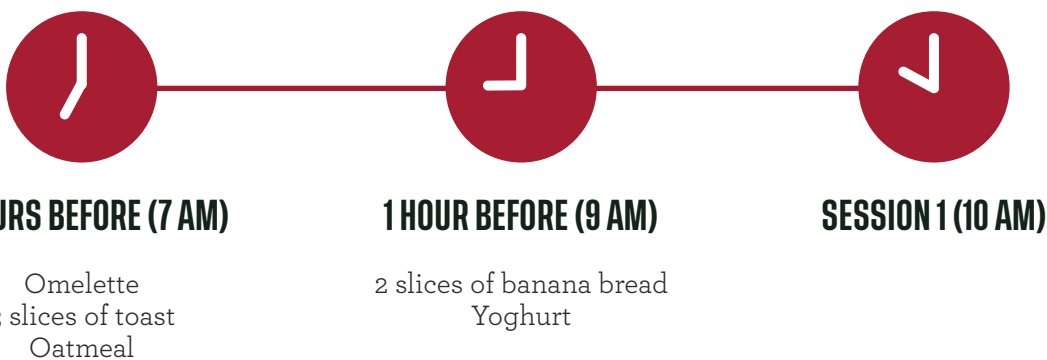
The **ideal timing** for the pre-training meal is usually around **3 to 4 hours** before your training session starts. Additionally, smaller, and easy to digest snacks may be consumed 30 minutes to 1 hour before your session. To avoid gastrointestinal problems, these meals should be low in fat and fibre.

SINGLE SESSION TIMELINE: 90 MINUTES OF ON-FIELD INTERMITTENT EXERCISE



DOUBLE SESSION TIMELINE: 2 X 90 MINUTES OF ON-FIELD INTERMITTENT EXERCISE

SESSION 1

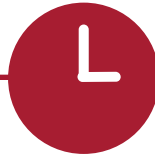


SESSION 2



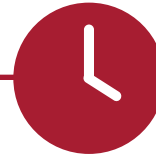
4 HOURS BEFORE (12 PM)

Pasta with sauce
Roasted chicken
Steamed vegetables
Sport drink



1 HOUR BEFORE (3 PM)

Peanut butter
Banana sandwich



SESSION 2 (4 PM)

REMEMBER: *Aim to start your sessions well hydrated by drinking fluids constantly through the day.*



03. DURING TRAINING

Generally there is little need to consume any food during training sessions.

Good hydration should be maintained by drinking fluids frequently throughout your training sessions. To minimise the negative effects of dehydration on performance, the American College of Sports Medicine recommends to avoid losses greater than 2% of your body weight before training. Also, if you are training in hot or humid environments, and your sweat rates are higher than normal, a beverage that contains electrolytes might help minimise dehydration.

In some instances, e.g. intense or long training, double sessions, or the day before a match, it may be also beneficial to consume carbohydrates during a training session. This can be in the form of fluids, gels or chews depending on your personal preference.



04. POST-TRAINING

The goal of a post-training meal is to support optimal recovery by refuelling, repairing and rehydrating your body.

A. REFUEL

Including carbohydrates in your post-training meal will help you refuel and replenish the carbohydrate muscle stores. The amount of carbohydrates recommended on this meal will depend on the length and the intensity of each training session and your daily carbohydrate targets.

After an **easy training session** or on those days with low daily carbohydrate requirements it is likely your carbohydrate stores are not depleted, so you don't need to worry too much about refuelling. In this case, opt for a balanced post-training meal that includes a moderate amount of carbohydrates, around **30 to 40 grams** of protein, and vegetables to get your fibre and micronutrients in.

After an **intense training session** or on those days with high daily carbohydrate requirements it is likely your carbohydrate stores will be low, or even depleted. The amount you should have in the post-training meal depends on your daily targets but as a general rule, aim to have at least **1.2 grams** per kilogram of body weight. E.g. a **100-kg** player would have at least **120 grams** of carbohydrates in the post-training meal.



REMEMBER: *The timing of carbohydrate intake after a training session is important! If you had a very intense session, aim to have a source of carbohydrates as soon as possible after your training session e.g. sport drink, chocolate milk, flapjack, banana.*

B. REPAIR

Eating protein after a training session can aid with muscle repair and recovery. Aim to include at least **30 g to 40 g** of protein in your post-training meal.

REMEMBER: *Covering your daily protein requirements and consuming a regular supply of protein across the course of the day is important for optimal adaptation and recovery.*



C. REHYDRATE

Rehydrating is an important part of recovery! You should focus on replacing any fluid and electrolyte losses caused by the training session. It is recommended to drink **1.5 litres** of fluid for every **1 kg** of body weight lost during training. For example, if you lose **0.5 kg** during training, you would aim to drink **750 ml of fluid**.

It is important to bear in mind that sweat losses calculated during a session only apply to that session and correspond to the intensity, duration, and temperature of that specific session.

REMEMBER: *Electrolytes such as sodium may also be lost in sweat during intense exercise or warm weather, and will need to be replaced for optimal rehydration.*



05. REFERENCES & ADDITIONAL RESOURCES

Close, GL., Kasper, AM., Morton, JP. (2023). Nutrition for Rugby. In Craig, T., and Worsfold, P. (Eds.), The Science of Rugby. 2nd Edition; pp 101-125. Routledge.

ABOUT THE AUTHORS

Nutrition for Training is published by England Rugby.

Maja Morell is a Sport Nutritionist (MSc) currently working at the Olympic Centre in Munich supporting athletes of various disciplines including open water swimming, athletics, and biathlon. In addition, she works with female youth soccer players of the Bavarian talent pool via interactive workshops where athletes learn how to personalise their diets according to their nutritional needs. Maja has a strong interest in exercise metabolism and carries the ambition of doing a PhD to contribute to research and ultimately provide better support to the athletes she works with.

Pamela Ibarra is a sports nutritionist who graduated from Liverpool John Moores University (LJMU) and the International Olympic Committee. She is currently working as a performance nutrition advisor for Ice Hockey UK and as a sports nutritionist at the LJMU High-Performance Unit. Pamela is also part of a research team studying the effects of carbohydrates on elite marathon runners and supports the RFU Match Official Development Programme.